

OPTICAL CUBE

ABSTRACT OF THE DISCLOSURE

A cube used to perform optical functions in a system, such as beam splitting or polarizing, or both, is manufactured by optically contacting a coated prism with an uncoated prism. The coated prism includes a dielectric stack having alternating layers of high and low index of refraction materials. To ensure secure optical contacting between the coated prism and uncoated prism, low interface reflection, and good throughput, a contacting layer is deposited on the dielectric stack. The contacting layer can be fused silica or SiO_2 , which has natural compatibility with the CaF_2 materials that make up the uncoated prism and the coating layers.